



KERR-McGEE CORPORATION
INTERNAL CORRESPONDENCE

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|------|--|---------|--|
| TO | B. Brown | DATE | February 7, 1985 |
| FROM | E. R. Goltra, M.D.
Corporate Medical Director | SUBJECT | Industrial Hygiene Survey
Southwestern Refinery |

Attached are the results of an industrial hygiene survey conducted at Southwestern Refinery in Corpus Christi on January 7-9, 1985.

Your review of this report and response is required by February 28, 1985.

If you have any questions concerning this report, please contact me at KMNET 220-2909.

ERG/1h

attachment

xc: W. Litton

SWRf/Asbestos 1136

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KERR-McGEE CORPORATION
INTERNAL CORRESPONDENCE

TO E. R. Goltra DATE February 5, 1985
FROM D. P. Johnson *DPJ* SUBJECT Industrial Hygiene Survey
Southwestern Refinery

An industrial hygiene survey was conducted at the Southwestern Refinery in Corpus Christi, Texas on January 7-9, 1985. The purpose of the survey was to monitor employee exposures to welding fumes and hydrofluoric acid during routine operations. During the survey the opportunity arose to monitor for asbestos.

The results of the Total Particulate and Welding Fume Survey may be found in Table I. R. Trammel and G. Brubaker were monitored during a gouging operation inside the reactor tower of the Cat I unit. The total particulate exposures during this operation are assumed to be coke dust as opposed to welding fumes. The survey indicates employee exposure significantly higher than the OSHA PEL of 10 mg/m³ for total particulates. Both employees were wearing 3M-8710 disposable dust masks. Use of disposable dust masks should be standard operating procedure when exposure to nuisance dust at high concentrations occurs.

Employees F. Perez and S. Olivarez were welding in the maintenance shop during the monitoring. The survey indicates employee exposures below the OSHA PEL of 5 mg/m³ for welding fume total particulates. Action at this time is not warranted.

The results of the Welding Fume Survey may be found in Table II. Iron oxide, chromium, and nickel were the fumes of interest during the monitoring. Exposure to iron oxide was below the OSHA PEL of 5 mg/m³. Exposures to chromium and nickel were below detectable limits of the analytical procedure. At this time action is not warranted.

The results of the Asbestos Survey may be found in Table III. In comparing these results to an OSHA PEL of 2 fibers/cc, there is insignificant exposure. At this time action is not warranted.

The results of the Hydrofluoric Acid survey may be found in Table IV. Area and personal monitoring samples were collected. The area monitor was placed at the site where product samples are collected. The area monitor indicates low levels of HF acid from this sample point. The personal monitor was placed on the outside operator. Again, insignificant exposure to HF acid occurred. At this time action is not warranted.

During my visit, spot checks of the safety eye wash and emergency showers were conducted. These stations are supposedly checked monthly by the unit operating personnel. At the time M. Zimmer and I checked them, several

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were inoperative, some had restricted water flow and one dispensed hot water instead of cool. All eye wash and emergency shower stations must be repaired before an injury occurs.

Any questions concerning this memorandum may be directed to the undersigned.

D. P. Johnson

DPJ:cr

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TABLE I
SOUTHWESTERN REFINING COMPANY
CORPUS CHRISTI, TEXAS
TOTAL PARTICULATE/WELDING FUME SURVEY

| <u>Sample No.</u> | <u>Employee</u> | <u>Soc. Sec. No.</u> | <u>8-Hr TWA</u> | <u>OSHA PEL*</u> |
|-------------------|-----------------|----------------------|-------------------------|----------------------|
| 85-001 | R. Trammel | 457-80-5117 | 52.3 mg/m ³ | 10 mg/m ³ |
| 85-005 | | | | |
| 85-006 | | | | |
| 85-007 | | | | |
| 85-002 | G. Brubaker | 450-39-9095 | 83.16 mg/m ³ | 10 mg/m ³ |
| 85-008 | | | | |
| 85-009 | | | | |
| 85-010 | | | | |
| 85-003 | F. Perez | 450-86-7402 | 0.45 mg/m ³ | 5 mg/m ³ |
| 85-004 | S. Olivarez | 459-84-1978 | 0.18 mg/m ³ | 5 mg/m ³ |

*OSHA permissible exposure (PEL) levels for total particulate is 10 mg/m³. The PEL for welding fumes is 5 mg/m³. Trammel and Brubaker were gouging in the FCCU I reactor tower. Their exposure is mainly due to coke dust as opposed to welding fumes. Perez and Olivarez exposure is mainly due to welding fumes.

TABLE II
SOUTHWESTERN REFINING COMPANY
CORPUS CHRISTI, TEXAS
WELDING FUME SURVEY

| <u>Sample No.</u> | <u>Employee</u> | <u>Soc. Sec. No.</u> | <u>Iron Oxide</u> | | <u>Chromium</u> | | <u>Nickel</u> | |
|-------------------|-----------------|----------------------|------------------------|-----------------------|-----------------|-----------------------|-----------------|---------------------|
| | | | <u>8-Hr TWA</u> | <u>OSHA PEL</u> | <u>8-Hr TWA</u> | <u>OSHA PEL</u> | <u>8-Hr TWA</u> | <u>OSHA PEL</u> |
| 85-013 | E. Perez | 453-88-2699 | 0.45 mg/m ³ | 5.0 mg/m ³ | BDL* | 0.5 mg/m ³ | BDL | 1 mg/m ³ |
| 85-014 | F. Perez | 450-86-7402 | 2.0 mg/m ³ | 5.0 mg/m ³ | BDL | 0.5 mg/m ³ | BDL | 1 mg/m ³ |

*BDL - Below Detectable Limits

TABLE III
SOUTHWESTERN REFINING COMPANY
CORPUS CHRISTI, TEXAS
ASBESTOS SURVEY

| <u>Sample No.</u> | <u>Employee</u> | <u>Soc. Sec. No.</u> | <u>8-Hr TWA</u> | <u>OSHA PEL</u> |
|-------------------|-----------------|----------------------|-----------------|-----------------|
| 85-011 | L. Miranda | 464-08-5201 | 0.02 f/cc | 2 f/cc |
| 85-012 | R. Wilford | 453-23-1404 | 0.21 f/cc | " |

TABLE IV
SOUTHWESTERN REFINING COMPANY
CORPUS CHRISTI, TEXAS
HYDROFLUORIC ACID SURVEY

| <u>Sample No.</u> | <u>Employee</u> | <u>Soc. Sec. No.</u> | <u>8-Hr TWA</u> | <u>OSHA PEL</u> |
|-------------------|-----------------|----------------------|-----------------|-----------------|
| 85-01 | P. Cordy | 461-27-9922 | 0.0017 ppm | 3 ppm |
| 85-03 | | | 0.0007 ppm | |
| 85-02 | Area | | 0.0024 ppm | |
| 85-04 | | | 0.0012 ppm | |

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